

CLAIMS

What is claimed is:

1. A method applicable within a server for adaptively allocating target resources in a network environment during concurrent sessions in which at least one initiator node is communicatively connected to a target node utilizing an associated network target address, said method comprising:

receiving a session message from one of the at least one initiator node or the target node; and

responsive to the received session message:

replacing the network target address associated with the target node with a different network target address; and

issuing a target rediscovery message to the at least one initiator node, wherein the target rediscovery message directs the at least one initiator node to rediscover available target nodes in accordance with associated network target addresses.

2. The method of claim 1, further comprising, responsive to the received session message, interrupting the concurrent sessions.

3. The method of claim 2, wherein said interrupting the concurrent sessions is performed in response to issuing the rediscovery message to the target node.

1 4. The method of claim 1, wherein said replacing the associated network target address
2 comprises:

3 issuing an address change instruction to a target network adapter at which the
4 concurrent sessions are connected at the associated network target address, wherein said
5 address change instruction directs the target network adapter to bind itself to the different
6 network target address; and

7 associating the target node with the replacement network target address within the
8 server.

1 5. The method of claim 1, wherein the received session message is a rediscovery
2 request.

1 6. The method of claim 1, wherein the received session message includes a simple
2 network management protocol management information base object.

1 7. The method of claim 1, wherein the received session message includes a session
2 metric, said method further comprising:

3 determining whether the received session metric is within a predetermined threshold;
4 and

5 responsive to the received session metric being outside the predetermined threshold:

6 replacing the original network target address with a replacement network
7 target address; and

8 issuing the target rediscovery message to the at least one initiator node.

1 8. The method of claim 7, wherein the session metric is a quality of service metric,
2 wherein the quality of service metric relates to one or more of average transmission rate,
3 maximum transmission rate, minimum transmission rate, transmission error rate, and
4 network node delay.

1 9. The method of claim 1, wherein the target rediscovery message includes directing
2 each of the at least one initiator node to discover target devices available to itself as
3 determined by the association of the different network target address with the target node
4 within the server.

1 10. A system for adaptively allocating target resources in a network environment during
2 concurrent sessions in which at least one initiator node is communicatively connected to a
3 target node utilizing an associated network target address, said system comprising:
4

5 processing means within a server for receiving a session message from one of the at
6 least one initiator node or the target node; and

7 processing means within the server responsive to the received session message for:

8 replacing the network target address associated with the target node with a
9 different network target address; and

10 issuing a target rediscovery message to the at least one initiator node, wherein
11 the target rediscovery message directs the at least one initiator node to rediscover
available target nodes in accordance with associated network target addresses.

1 11. The system of claim 10, further comprising, processing means within the server
2 responsive to the received session message, for delivering a session interrupt message to the
3 target node.

1 12. The system of claim 11, wherein the session interrupt message is delivered in
2 response to issuing the rediscovery message to the target node.

1 13. The system of claim 10, wherein said processing means for replacing the associated
2 network target address comprises:

3 processing means for sending an address change instruction to a target network

4 adapter, wherein said address change instruction directs the target network adapter to bind
5 itself to the different network target address; and

6 processing means for associating the target node with the replacement network target
7 address within the server.

1 14. The system of claim 10, wherein the received session message is a rediscovery
2 request.

1 15. The system of claim 10, wherein the received session message includes a simple
2 network management protocol management information base object.

1 16. The system of claim 10, wherein the received session message includes a session
2 metric, said system further comprising:

3 processing means within the server for determining whether the received session
4 metric is within a predetermined threshold; and

5 processing means within the server responsive to the received session metric being
6 outside the predetermined threshold for:

7 replacing the original network target address with a replacement network
8 target address; and

9 issuing the target rediscovery message to the at least one initiator node.

1 17. The system of claim 16, wherein the session metric is a quality of service metric,
2 wherein the quality of service metric relates to one or more of average transmission rate,
3 maximum transmission rate, minimum transmission rate, transmission error rate, and
4 network node delay.

1 18. The system of claim 10, wherein the target rediscovery message includes directing
2 each of the at least one initiator node to discover target devices available to itself as

3 determined by the association of the different network target address with the target node
4 within the server.

1 19. A computer program product for adaptively allocating target resources in a network
2 environment during concurrent sessions in which at least one initiator node is
3 communicatively connected to a target node utilizing an associated network target address,
4 said computer program product comprising:

5 program instruction means within a server for receiving a session message from one
6 of the at least one initiator node or the target node; and

7 program instruction means within the server responsive to the received session
8 message for:

9 replacing the network target address associated with the target node with a
10 different network target address; and

11 issuing a target rediscovery message to the at least one initiator node, wherein
12 the target rediscovery message directs the at least one initiator node to rediscover
13 available target nodes in accordance with associated network target addresses.

1 20. The computer program product of claim 19, further comprising, program instruction
2 means within the server responsive to the received session message, for delivering a session
3 interrupt message to the target node.

1 21. The computer program product of claim 20, wherein the session interrupt message
2 is delivered in response to issuing the rediscovery message to the target node.

1 22. The computer program product of claim 19, wherein said program instruction means
2 for replacing the associated network target address comprises:

3 program instruction means for sending an address change instruction to a target
4 network adapter, wherein the address change instruction directs the target network adapter

5 to bind itself to the different network target address; and

6 program instruction means for associating the target node with the replacement
7 network target address within the server.

1 23. The computer program product of claim 19, wherein the received session message
2 is a rediscovery request.

1 24. The computer program product of claim 19, wherein the received session message
2 includes a simple network management protocol management information base object.

1 25. The computer program product of claim 19, wherein the received session message
2 includes a session metric, said computer program product further comprising:

3 program instruction means within the server for determining whether the received
4 session metric is within a predetermined threshold; and

5 program instruction means within the server responsive to the received session metric
6 being outside the predetermined threshold for:

7 replacing the original network target address with a replacement network
8 target address; and

9 issuing the target rediscovery message to the at least one initiator node.

1 26. The computer program product of claim 25, wherein the session metric is a quality
2 of service metric, wherein the quality of service metric relates to one or more of average
3 transmission rate, maximum transmission rate, minimum transmission rate, transmission
4 error rate, and network node delay.

27. The computer program product of claim 19, wherein the target rediscovery message includes directing each of the at least one initiator node to discover target devices available to itself as determined by the association of the different network target address with the target node within the server.